



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 20 2018

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Liz Stueck-Mullane, Director
Air Quality - Environmental Department
We Energies
333 West Everett Street
Milwaukee, Wisconsin 53203

Re: Finding of Violation
We Energies – Presque Isle Power Plant
Marquette, Michigan

Dear Ms. Stueck-Mullane:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to We Energies – Presque Isle Power Plant (you) under Section 113(a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(3). We find that you have violated the National Emission Standards for Hazardous Air Pollutants for Coal and Oil-Fired Electric Utility Steam Generating Units contained in 40 C.F.R. Part 63, Subpart UUUUU, at the Presque Isle Power Plant located in Marquette, Michigan.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Victoria Nelson. You may contact her at (312) 886-9481 or nelson.victoria@epa.gov to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edward Nam', with a stylized flourish at the end.

Edward Nam
Director
Air and Radiation Division

Enclosure

cc: Cynthia Faur, Partner, Quarles & Brady LLP
Cynthia Brandt, Sr. Engineer, We Energies
Steve Stretchberry, Principal Environmental Consultant, We Energies
Ed Lancaster, Upper Peninsula District Supervisor, MDEQ
Thomas Hess, Unit Supervisor, MDEQ

4. Pursuant to Section 112 of the CAA, EPA promulgated the NESHAP Subpart UUUUU at 40 C.F.R. Part 63, Subpart UUUUU, 40 C.F.R. §§ 63.9980 - 63.10042, on February

16, 2012. 77 *Fed. Reg.* 9464.

5. The NESHAP Subpart UUUUU defines “electric utility steam generating unit” (EGU) as, among other things, a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. 40 C.F.R. § 63.10042.
6. The NESHAP Subpart UUUUU defines “fossil fuel-fired” as an EGU that is capable of producing more than 25 MW of electrical output from the combustion of fossil fuels. 40 C.F.R. § 63.10042.
7. The NESHAP Subpart UUUUU defines “coal-fired EGU” as an EGU meeting the definition of “fossil fuel-fired” that burns coal for more than 10.0 percent of the average annual heat input during the 3 previous calendar years after the compliance date for the facility in 40 C.F.R. § 63.9984 or for more than 15.0 percent of the annual heat input during any one of those calendar years. 40 C.F.R. § 63.10042.
8. NESHAP Subpart UUUUU applies to owners and operators of coal- and oil-fired EGUs. 40 C.F.R. § 63.9981.
9. NESHAP Subpart UUUUU defines “affected source” as the collection of all new or existing coal- or oil-fired EGUs. 40 C.F.R. § 63.9982(a).
10. 40 C.F.R. § 63.9984(b) states that an existing affected source must comply with the NESHAP Subpart UUUUU no later than April 16, 2015.
11. 40 C.F.R. § 63.10000(a) provides that an owner or operator must be in compliance with the emission limits and operating limits in NESHAP Subpart UUUUU. These limits apply to an owner or operator at all times except during periods of startup and shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, an owner or operator is required to meet the work practice requirements, items 3 and 4, in Table 3 of NESHAP Subpart UUUUU during periods of startup or shutdown.
12. 40 C.F.R. § 63.9991(a)(1), referencing Table 2 to NESHAP Subpart UUUUU, states that an existing coal-fired EGU that is not combusting low rank virgin coal must comply with a Hg emission limit of 1.2 pounds of Hg per TBtu.
13. 40 C.F.R. § 63.10000(c)(1) provides that, for coal-fired EGUs, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits.
14. 40 C.F.R. § 63.10000(c)(1)(i) states that, for a coal-fired EGU, an owner or operator may conduct initial performance testing in accordance with 40 C.F.R. § 63.10005(h), to determine whether the EGU qualifies as a low-emitting EGU (LEE) for one or more applicable emission limits, except as otherwise provided by 40 C.F.R. § 63.10000(c)(1)(i)(A) and (B).

15. 40 C.F.R. § 63.10005(h)(1)(ii)(A) provides that in order to qualify for LEE status for Hg for an existing EGU, an owner or operator may demonstrate average emissions of less than 10 percent of the applicable emissions limit or potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable emission limit.
16. 40 C.F.R. § 63.10000(c)(1)(ii) provides that, for a qualifying LEE for Hg emission limits, an owner or operator must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status.
17. 40 C.F.R. § 63.10021(b) provides that continuous compliance must be demonstrated using all quality-assured hourly data recorded by a sorbent trap monitoring system and other required monitoring systems (*e.g.* flow rate, CO₂, O₂, or moisture systems) to calculate a 30-boiler operating day rolling arithmetic average Hg emission rate that is updated at the end of each new boiler operating day.

Relevant Factual Background

18. WE is a “person,” as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).
19. WE owns and operates five coal-fired EGUs subject to NESHAP Subpart UUUUU and identified as Units 5, 6, 7, 8, and 9 at 2701 North Lakeshore Boulevard, Marquette, Michigan.
20. At Units 5 – 9, WE controls Hg emissions using dry sorbent injection (DSI) of a sorbent material with lime and powdered activated carbon (PAC). WE receives this material with a specified composition from a third-party supplier. Sorbent material is injected from one of two silos into the flue gas streams for Units 5 and 6 and the other silo for Units 7, 8, and 9.
21. To demonstrate initial compliance with the Hg emission limit at its affected EGUs, WE conducted 30-day Method 30B performance testing at Unit 5 with the end dates in Table A below. With these tests, WE notified MDEQ that it had obtained LEE status at all five units by demonstrating average emissions less than 29 pounds of Hg per year and compliance with the applicable emissions limit at each unit.

Table A – 2016 LEE Testing End Dates

Unit	End Date
5	July 14, 2016
6	August 22, 2016
7, 8, 9	July 11, 2016

22. On June 6, 2017, WE began LEE Hg testing on Unit 5 using sorbent traps and EPA Reference Method 30B. On June 20, 2017, WE received initial results from the sorbent trap analyses, as follows: 1.168 pounds of Hg per TBtu for June 6 – 14; and 1.752 pounds of Hg per TBtu for June 14 – 16. WE later received the following results: 1.667 pounds of Hg per TBtu for June 20 – 21; and 1.245 pounds of Hg per TBtu for June 21 – 26.
23. On June 8, 2017, WE began Hg testing on Units 8 and 9 using sorbent traps and EPA Reference Method 30B. Units 7, 8, and 9 have a shared emissions stack. On June 20, 2017, WE received initial results from the sorbent trap analyses, as follows: 1.494 pounds of Hg per TBtu for June 8 – 14; 1.214 pounds of Hg per TBtu for June 14 – 20. WE later received the following results: 1.694 pounds of Hg per TBtu for June 21 – 26.
24. In response to elevated Hg levels found in the sorbent traps, WE halted testing at Units 5, 8, and 9 before completing the required 30-day Hg sorbent trap testing in accordance with 40 C.F.R. § 63.10000(c)(1)(ii). WE later determined the testing results for June 6 – 20, 2017, at all units and June 21 – 26, 2017, at Unit 5 were invalid.
25. On June 20, 2017, WE began investigating the cause of the elevated Hg readings. WE determined its third-party sorbent supplier had delivered off-specification material, resulting in reduced control of Hg emissions. Based upon data provided by WE, EPA estimates that the plant used off-specification material from approximately April 25 through July 14, 2017.
26. The invalid data at Units 5, 8, and 9 resulted from elevated Hg levels compared to 2016 LEE testing results, upon which the June 2017 sorbent traps were calibrated. The valid testing at Unit 5 of 1.667 pounds of Hg per TBtu for June 20 – 21, 2017 represents Hg emission levels at Units 5 and 6 for the time the off-specification sorbent was used.
27. The valid testing at Units 8 and 9 of 1.694 pounds of Hg per TBtu for June 21 – 26, 2017 represents Hg emission levels at Units 8 and 9 for the time the off-specification sorbent was used.
28. On June 29, 2017, WE increased the dry sorbent injection rate at all units to improve Hg control with the off-specification sorbent material. WE collected 12 hours of sorbent trap readings to demonstrate the reduction in Hg emissions at the increased injection rate.
29. On July 7, 2017, WE notified the Michigan Department of Environmental Quality (MDEQ) of the issue described above and potential excess Hg emissions.
30. On July 21 – November 1, 2017, WE conducted new Hg testing on Units 8 and 9 using sorbent traps and EPA Reference Method 30B, resulting in 1.167 pounds of Hg per TBtu. Unit 7 was not operating during the performance testing conducted at Units 8 and 9 via shared stack.

31. On July 25 – September 5, 2017, WE conducted new Hg testing on Unit 5 using sorbent traps and EPA Reference Method 30B, resulting in 0.486 pounds of Hg per TBtu.
32. On August 24 – November 25, 2017, WE conducted new Hg testing on Unit 6 using sorbent traps and EPA Reference Method 30B, resulting in 0.913 pounds of Hg per TBtu.
33. The LEE Hg testing identified in Paragraphs 30, 31, and 32 occurred more than 13 months after the 2016 LEE testing.

Finding of Violations

34. WE exceeded the Hg emission limit at Units 5 and 6, in violation of 40 C.F.R. § 63.9991(a)(1).
35. WE exceeded the Hg emission limit at Units 8 and 9, in violation of 40 C.F.R. § 63.9991(a)(1).
36. WE failed to conduct LEE Hg testing once every 12 calendar months in accordance with 40 C.F.R. § 63.10000(c)(1)(ii).

Environmental Impact of Violations

37. WE's violations of the above-referenced NESHAP have caused excess emissions of elemental mercury. Acute and/or prolonged exposure to elemental mercury in humans results in central nervous system effects, including:

- Tremors
- Emotional changes
- Insomnia
- Neuromuscular changes
- Headaches
- Disturbances in sensations
- Changes in nerve responses
- Poor performance on tests of mental function

Higher exposures may also cause kidney effects, respiratory failure and death.

Date

3/22/18



Edward Nam

Director

Air and Radiation Division

CERTIFICATE OF MAILING

I certify that I sent a Finding of Violation, No. EPA-5-18-MI-02, by Certified Mail, Return Receipt Requested, to:

Liz Stueck-Mullane, Director
Air Quality - Environmental Department
We Energies
333 West Everett Street
Milwaukee, Wisconsin 53203

Article # 70150640000459655935

I also certify that I sent copies of the Finding of Violation by e-mail to:

Cynthia Faur, Partner
Quarles & Brady LLP
Cynthia.faur@quarles.com

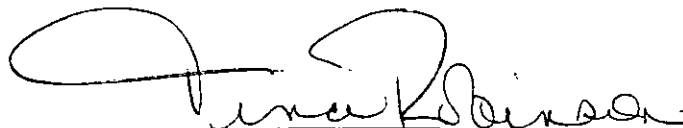
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Upper Peninsula District Office, Air Quality Division
Michigan Department of Environmental Quality
Lancasterel@michigan.gov

On the 21st day of March 2018



Kathy Jones
Program Technician
AECAB, PAS